

## ABSTRACT:

A communication system with multiple clusters (100, 105) connected through gateways (107, 108). The first cluster (100) has a controlled device (103), for which an abstract representation (AR) (104) is provided as interface on a controlling device (102). To facilitate an application device (111) in the second cluster (105) interacting with the AR (104), the system has a near proxy (109) in the first cluster (100) and a far proxy (110) in the second cluster (105). The application device (111) can interact with the AR (104) via the far proxy (110), which communicates with the near proxy (109), which in turn interacts with the AR (104). Results are sent back to the application device (111) in a similar fashion.

Using the above mechanism, a whole tree or chain of proxies can be constructed. An application device (205) on a third cluster (200) can interact with the AR (104) via a further far proxy (204), which communicates with a further near proxy (203) which in turn communicates with the far proxy (110) which further communicates as above.

Fig. 2